



SINKHOLES IN NORTH DISTRICT

Craig A. Stevens

North District Engineer



DELDOT MISSION STATEMENT:

Excellence in Transportation

Every Trip • Every Mode • Every Dollar • Everyone

SINKHOLE: DEFINITION

- Let's break the word up:
 - **Sink** – descend; drop (Oxford Languages)
 - **A Hole... oops Hole** – A hollow place in a solid body or surface. Hmmmm.



THANK YOU

Questions



SINKHOLE: QUESTIONS?

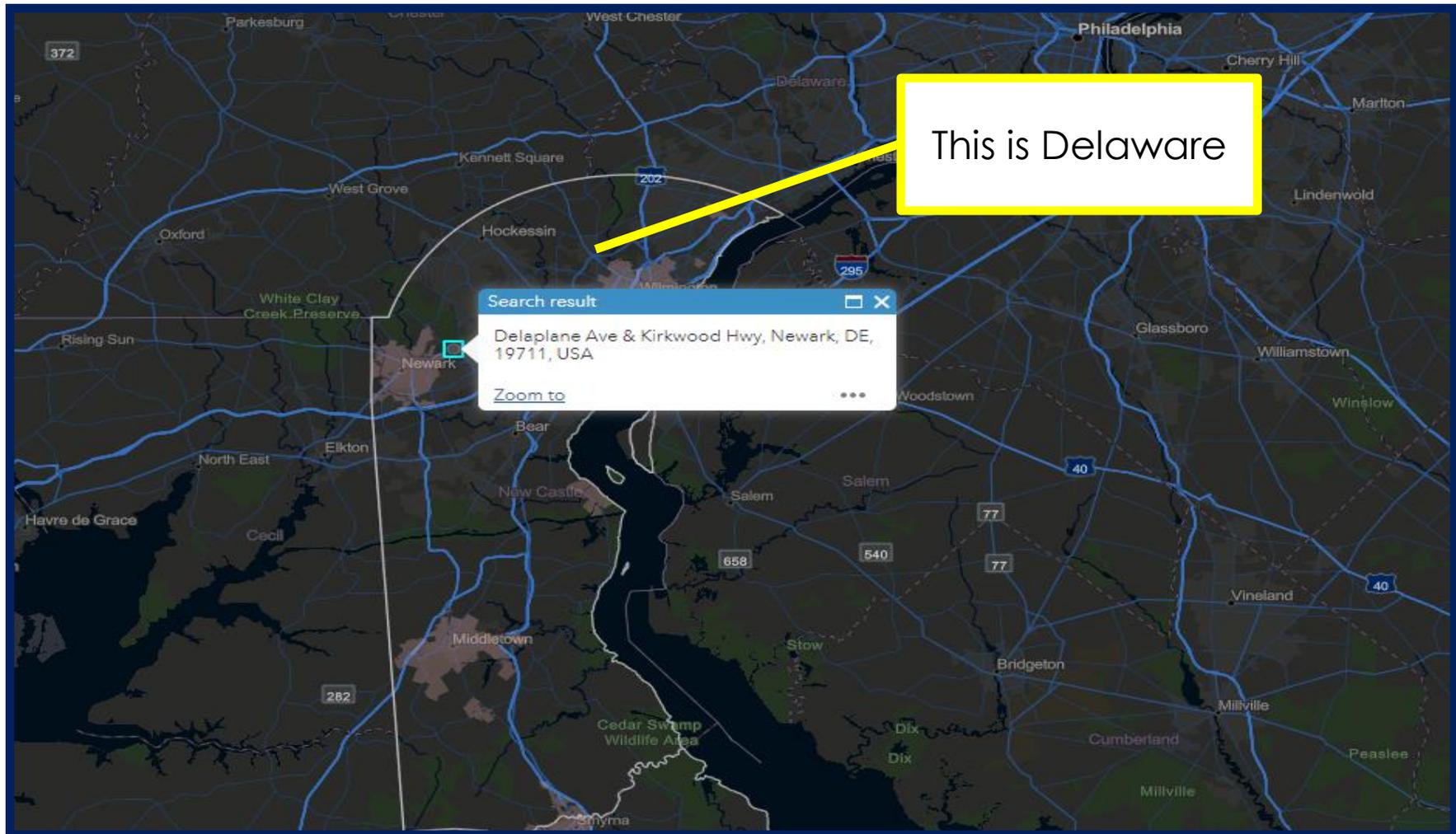


What do we do?

- What is that?
- What kind of road is this?
- How big is the void under the pavement?
- Close the road, or the lane?
- Close the turn Lane?
- Who will do the MOT?
- What time of the day is this?
- What caused this?
- How long will the road be closed?
- What do we do to fix this?

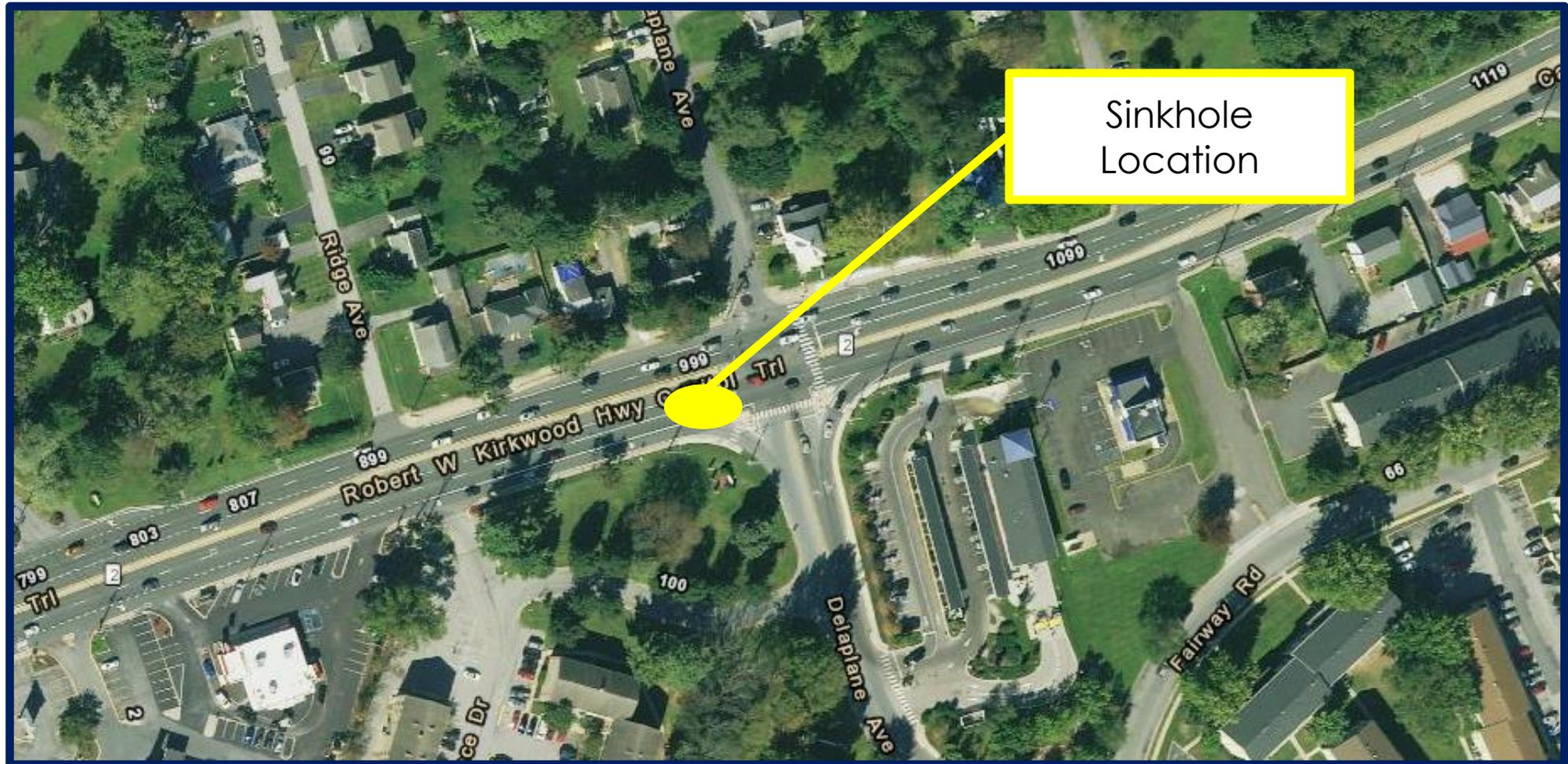
SINKHOLE ANSWERS

- Where is this? What kind of roadway?



SINKHOLE ANSWERS

- Where is this? What kind of roadway?



SINKHOLE ANSWERS

- Where is this? What kind of roadway?



The image shows an aerial view of a residential area with several roads. A yellow line highlights a road on the left, a green line highlights a road on the right, and a red line highlights a road at the bottom. A data overlay window titled "ROAD RATINGS: KIRKWOOD HIGHWAY" is positioned over the center of the image. The window contains the following information:

ROAD RATINGS: KIRKWOOD HIGHWAY	
COMMENTS	Level 1 (Good)
ROADWAY ID	15.00
ROAD NUMBER	NC-00011-F
DIRECTION	E
BEGIN MILEPOINT	5.10
END MILEPOINT	6.60
ROAD NAME	KIRKWOOD HIGHWAY
FUNCTIONAL CLASS	Other Principal Arterials
CURRENT YEAR	2,021
PAVEMENT TYPE	Composite
CURRENT RATING	79
UPDATE DATE	3/9/2022, 7:00 PM

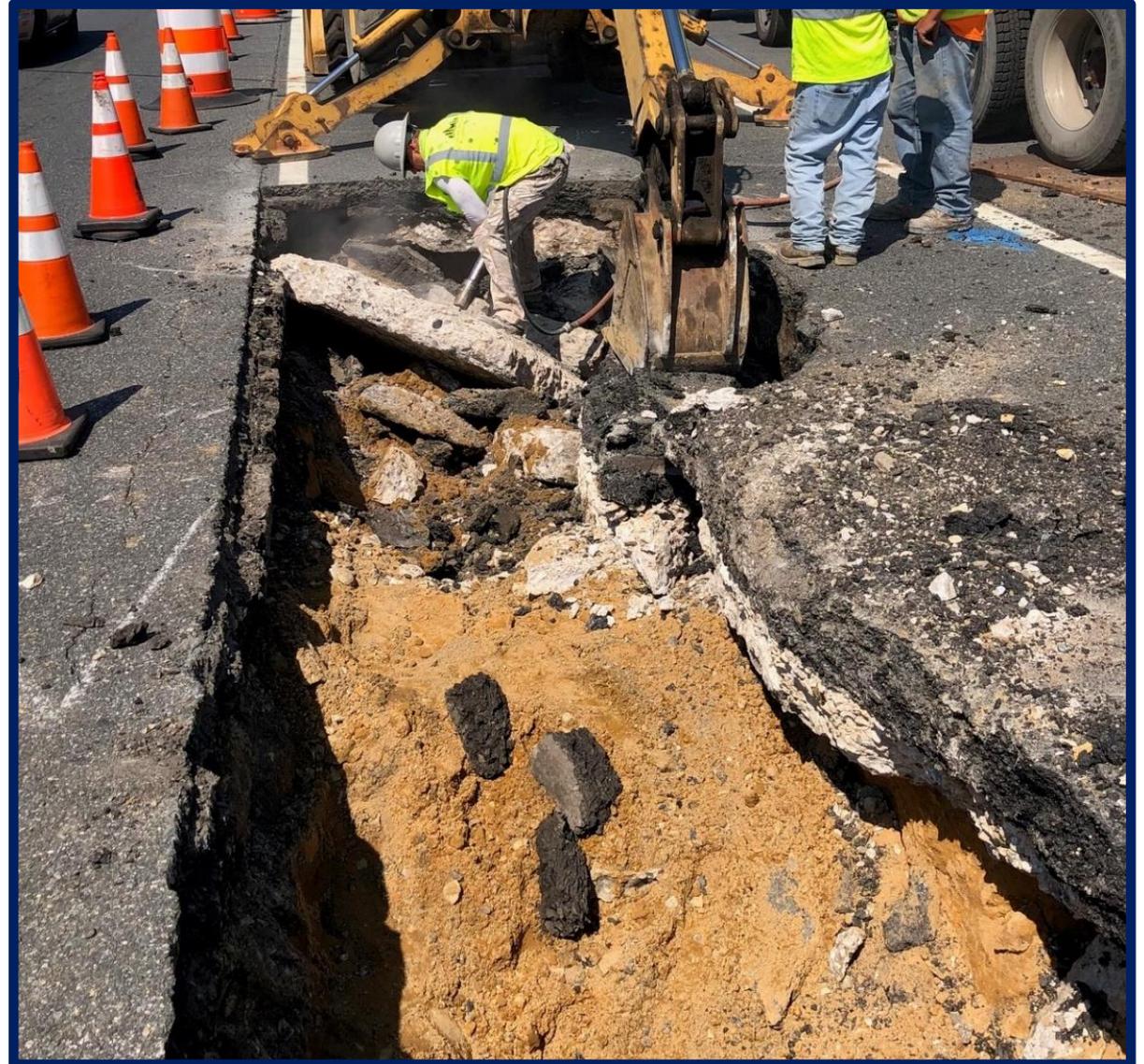
At the bottom of the window, there is a "Zoom to" button and three dots.

- Why is this important?
 - Need to know ADT
 - Need to figure out proper MOT
 - Need to consider impact of MOT.
 - Immediately contact TMC and upper management.
 - Here comes the press!

SINKHOLE ANSWERS

- How bad is the damage under the road?

- It was pretty big!
- It did not span more than one lane.
- Fortunate that we got there when we did.
- It was literally falling in when we pulled up.

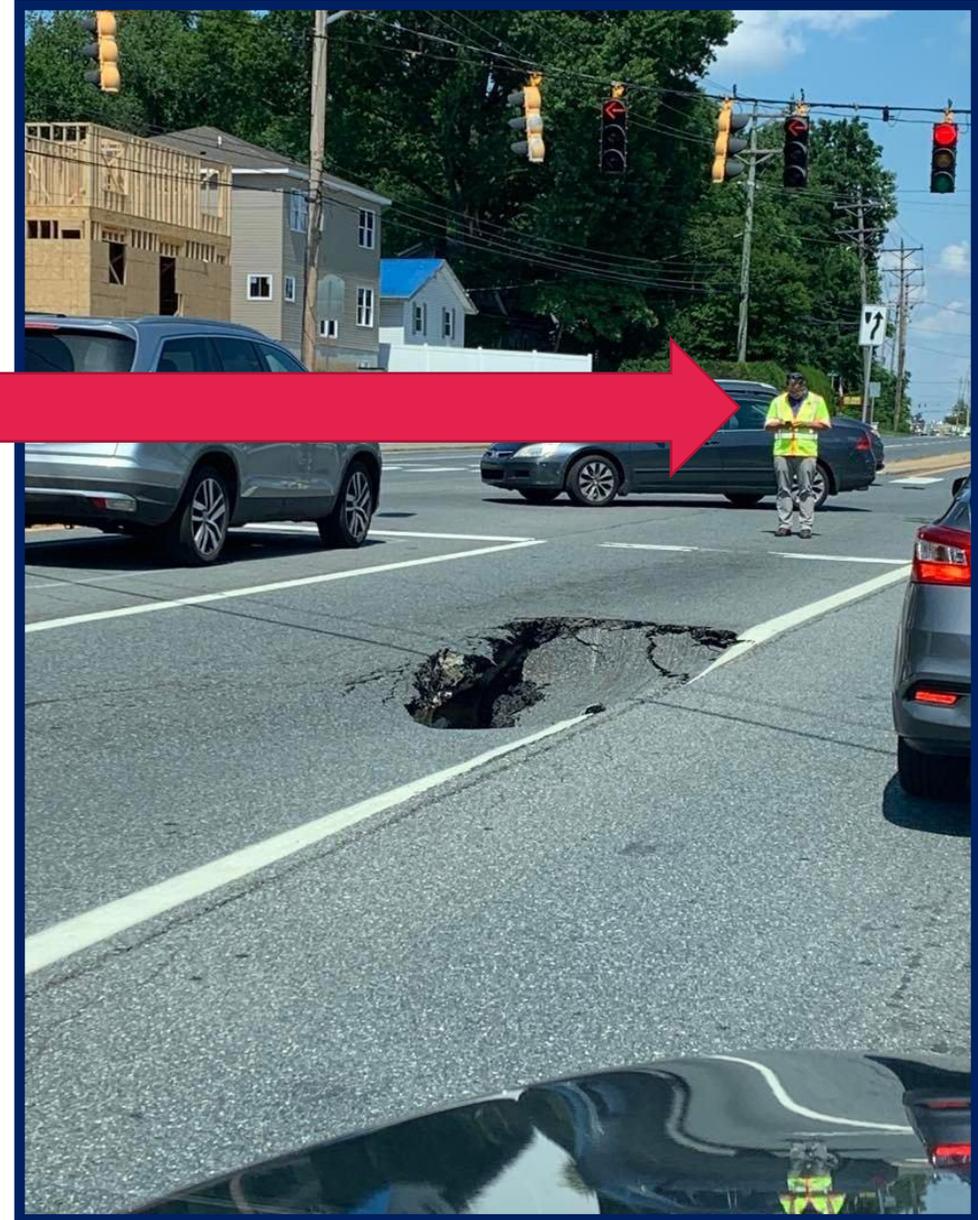


SINKHOLE ANSWERS

- We put our best guy on the job!

- Ladies and gentlemen,
MR. John Garcia!

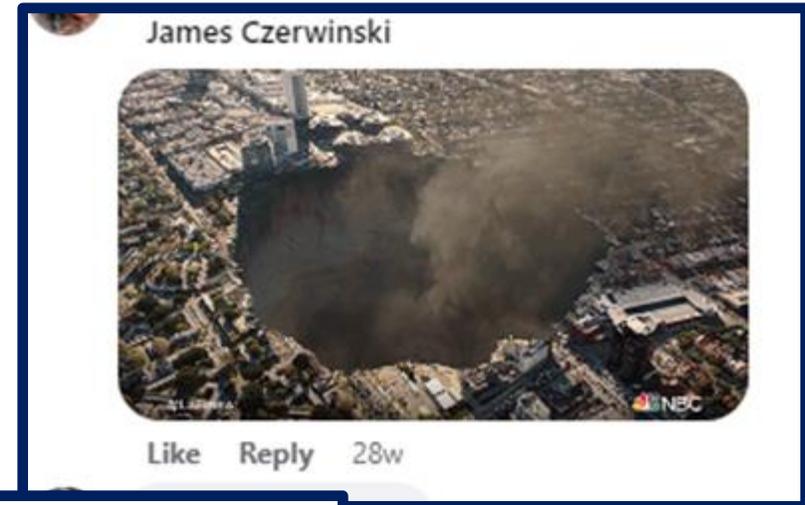
- Remember
this photo!



SINKHOLE ANSWERS

- The press and Social Media did not take long?

- Had cameras there within an hour.
- Social Media blew up!
- There are some creative minds out there.
- The photo of John was from Facebook.
- Check these out.



SINKHOLE ANSWERS

- The press and Social Media did not take long?
 - But wait, there is more...



Don't fret, this did not happen.



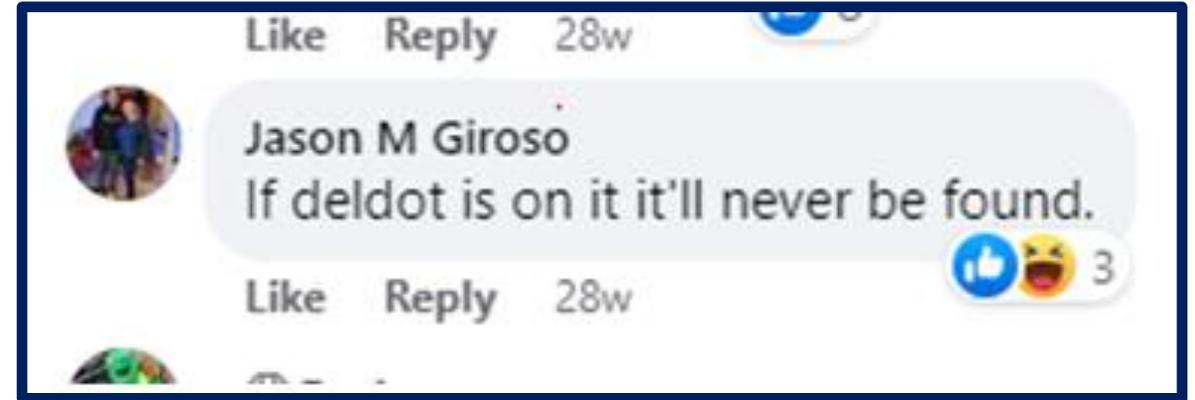
Stace doesn't seem happy in Delaware

SINKHOLE ANSWERS

- The press and Social Media did not take long?
 - But wait, there is more...and more...



Let's go fishing!



Not a lot of faith in DeIDOT out there!

SINKHOLE ANSWERS

- The press and Social Media did not take long?
 - But wait, there is more...and more...

NEWS

Newark-area sinkhole caused by old sewer line; road closures to remain through weekend



[Isabel Hughes](#)

Delaware News Journal

Published 5:14 p.m. ET July 14, 2022 | Updated 5:26 p.m. ET July 18, 2022

[View Comments](#)



A sinkhole "the size of a compact car" on Route 2 near Newark that created ... E.

SINKHOLE ANSWERS

- The press and Social Media did not take long?
 - But wait, there is more...and more...



Looks like improper PPE.

SINKHOLE ANSWERS

- What Happened here? Is it our pipe?



- NPDES layer.



- County is on site.

• Gateway to the Rescue

- We first go on Gateway
- Turn on NPDES layer
- NPDES does not show a pipe there.
- So, we call in the county.
- Is it theirs?
- Dye penetration test
- Not theirs.

SINKHOLE ANSWERS

- What Happened here? Is it our pipe?



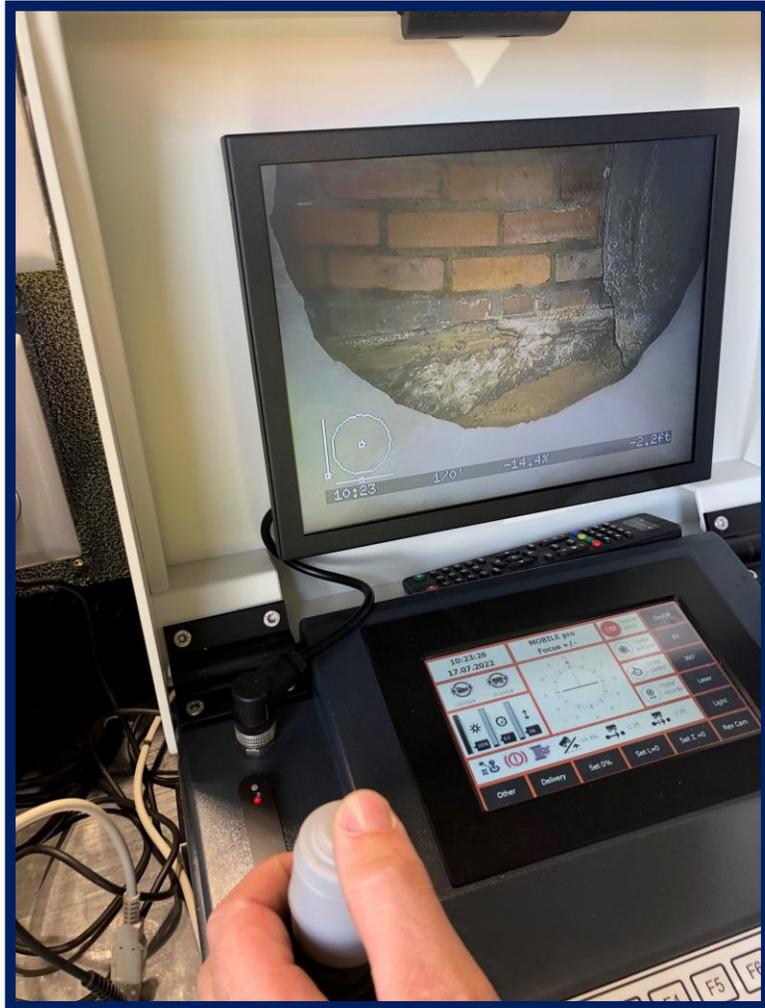
Stream

Sinkhole

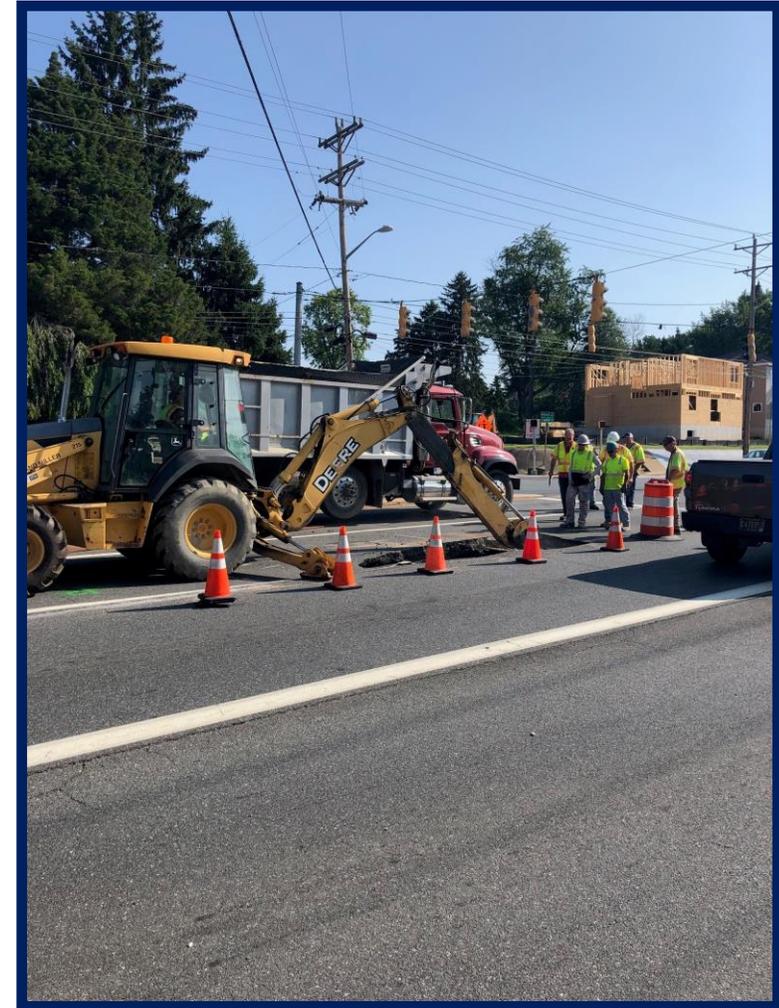
Archived Plans and John Garcia to the Rescue

- John took a walk to the stream
- Green dye was in stream
- It is part of our system
- Researched archived plans.
- Found it! Abandoned drainage pipe.

SINKHOLE ANSWERS



Verify by video



Excavate

SINKHOLE ANSWERS



Contractor to the rescue!

- Used an open-end contract.
- Excavate to and remove the pipe
- Backfill hole and reconstruct roadway.
- Open Roadway in 7 days.!

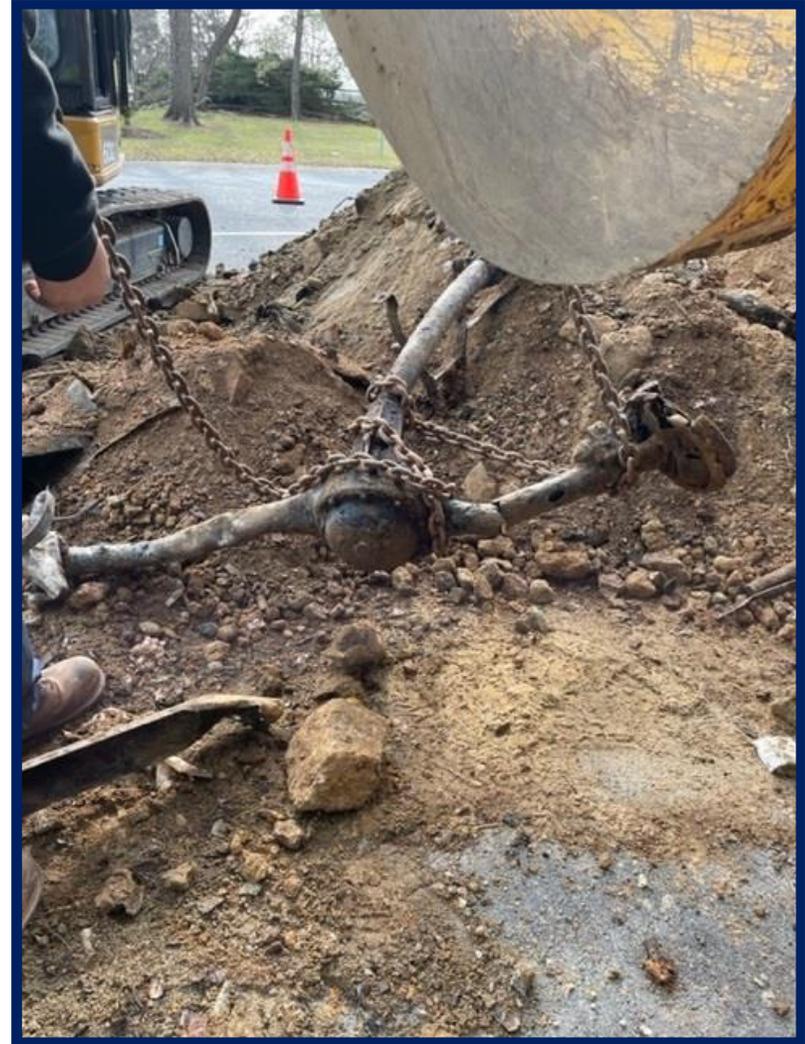
There is John Garcia again

BONUS MATERIAL

Not always pipes!



What is that?



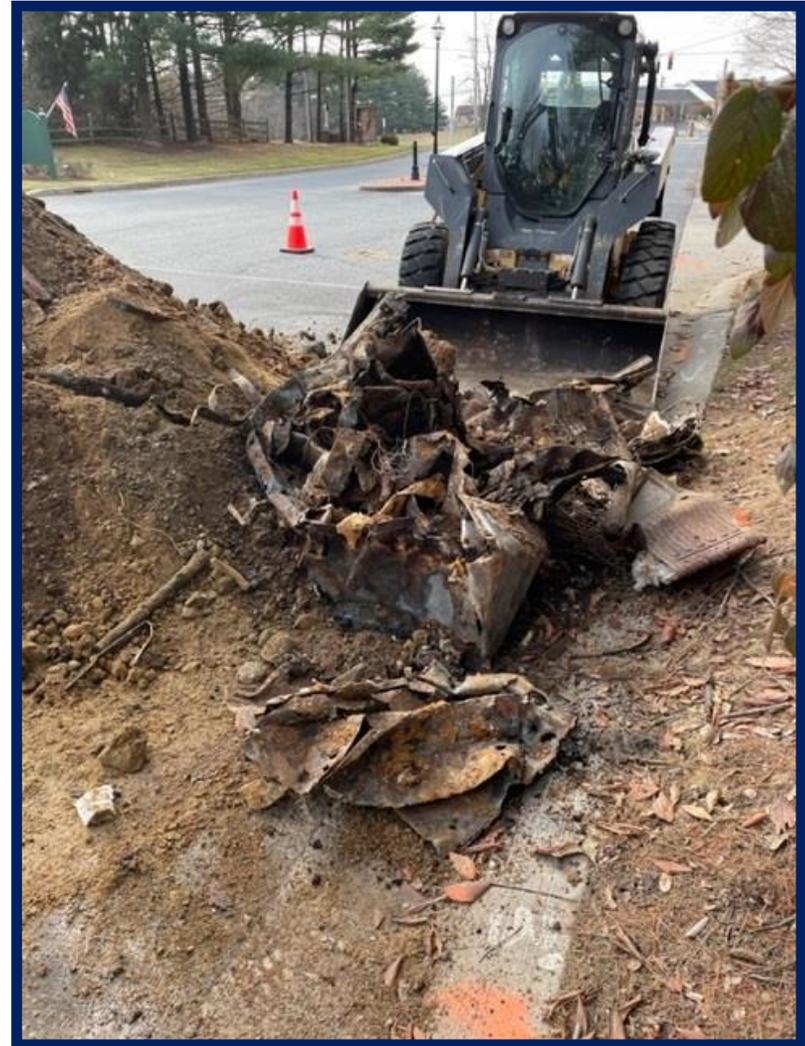
Truck axle.

BONUS MATERIAL

Not always pipes!



It's almost a whole truck?



See ya!

BONUS MATERIAL

Not Ours!



That's not that big?

This ended up
being NCC's



This went all the way under the lane.

THANK YOU

Questions

